

City of Lubbock

Water Quality Report 2008

July 2009

Rate Increases Help Meet Water Needs Today and Tomorrow

On May 1, 2009, new water and sewer rates became effective for the City of Lubbock. The reason for these rate increases are discussed in the following paragraphs.

Water Rate Increases

Since 2003, the Lubbock Water Advisory Commission and the City Council have worked hard to implement a long-term water supply plan to meet Lubbock's water needs. Ensuring that Lubbock has water requires a significant investment. While Lubbock has all the amenities to make it a great place to live and work, water used in Lubbock comes from long distances:

Bailey County Well Field	65 miles	Lake Meredith	165 miles
Roberts County Well Field	185 miles	Proposed Lake Alan Henry	65 miles

Water rate increases over the last ten years, including the current one, have been necessary to complete the Roberts County Well Field project that began providing water to Lubbock in 2002. The Well Field is owned and operated by the Canadian River Municipal Water Authority (CRMWA) of which Lubbock is a member city. The Well Field was originally developed to improve water quality, but it soon became Lubbock's primary source of water. The City of Lubbock has committed \$78 million to the Roberts County Well Field project in order to replace the dwindling supplies from Lake Meredith. CRMWA increased water rights in the Roberts County area from 42,000 to over 250,000 acres and will construct additional wells and pipelines within the next couple of years. The Roberts County Well Field will be able to provide Lubbock with about 8 billion gallons of water annually when the current project is complete. Today Lubbock has enough water to meet the annual need for 12 billion gallons (BG) of water. To meet this demand, the City now draws water from the following supply sources:

50% - Roberts County Wells 6.0 BG 30% - Lake Meredith 3.6 BG 20% - Bailey County Wells 2.4 BG

Sewer Rate Increases

Sewer rate increases are also necessary to continue to provide customers with a continual supply of water. Water is becoming a more valuable resource each year. Because the City must spend millions of dollars to bring water to Lubbock from as far as 180 miles away, it is logical for us to attempt to make every drop count. As a result, recycling our limited water resources is an important part of Lubbock's long-term water supply plan. Half of the water used by Lubbock (6 billion gallons annually) is collected in the sewer system for treatment at the City's Southeast Water Reclamation Plant. Since the 1930's the wastewater has been disposed of primarily by irrigating cropland and as process water for some industrial facilities, but even our wastewater is too valuable a resource to simply dispose of it.

A few years ago, the City developed a new strategy for handling its wastewater. Instead of disposing of it on cropland and creating potential environmental problems, the City adopted the goal to treat the wastewater to stream-quality standards while discharging the treated water into the Canyon Lakes. As a result, the City developed a Reclamation Plant improvement plan to increase treatment capacity, which consists of four phases. These phases are as follows:

Phase 1 - Headworks Improvements

This phase to rebuild and improve the initial lift station has been completed at a cost of \$2 million.

Phase 2 - Improvements at Plant 4

This phase is currently under construction and includes upgrading and expanding the treatment capacity of Plant 4 at a cost of \$43 million.

Phase 3 - Solids Handling Optimization

The city has begun the process of evaluating methods to remove and handle solids produced during treatment.

Phase 4 - Improvements at Plant 3

This phase consists of a future upgrade to Plant 3, is estimated to cost an additional \$30 million, and may begin as early as 2010.

Improving the treatment of wastewater at the Reclamation Plant brings us one-step closer to our goal of reusing water. However, as part of the water recycling process, the City must also secure water supply and reuse permits from appropriate regulatory agencies. These permits are necessary for the discharge, storage, diversion, and use of water in streams, rivers and reservoirs. The City will need to construct reservoirs to capture the discharged water for reuse. The construction of Canyon Lake #7 and/or the Post Reservoir are two viable options that may become a reality in the next 20 years. Once these projects are complete, the City will have the technology and infrastructure in place to make wastewater recycling a reality. The fees that you pay for water and sewer services are part of a proactive plan to ensure that we will have water to meet the needs of today and tomorrow.

Where Does Our Water Come From?

The City of Lubbock's drinking water comes from both surface and groundwater sources. The Canadian River Municipal Water Authority (CRMWA) provides 75-85% of Lubbock's water supply from Lake Meredith and from Roberts County well field. Lake Meredith is located by Sanford, Texas about 164 miles north of Lubbock, and the Roberts County well field is located about 40 miles east of Lake Meredith. The City owned Bailey County Well Field (BCWF) provides 15-25% of the City's water supply and is located about 65 miles northwest of Lubbock. During 2008, the citizens of Lubbock used 11.8 billion gallons of water with 9.6 billion gallons supplied by CRMWA and 2.2 billion gallons came from BCWF.

Source Water Assessment

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water before treatment include: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants, and organic chemical contaminants.

Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements

This report is a summary of the quality of the water Lubbock provides to its customers. The analysis was made by using data from the most recent Environmental Protection Agency required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what is in your drinking water. This report represents data for the year 2008.

Helpful Definitions for Reading this Report

Maximum Contaminant Level Goal (MCLG) – The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL) – The highest permissible level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Action Level (AL) – The concentration of a contaminant which, if exceeded triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

Part per million (ppm) – One part per million or milligrams per liter. For example, if you had one million dollars, one part per million would equal one dollar.

Part per billion (ppb) – One part per billion or micrograms per liter. For example, if you had one billion dollars, one part per billion would equal one dollar.

NTU – nephelometric turbidity units (a measure of turbidity)

pCi/L – picocuries per liter (a measure of radioactivity)

Maximum Residual Disinfectant Level (MRDL) – The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Important Information for Your Consideration

Special Information for People with Weakened Immune Systems

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The EPA/Centers for Disease Control and Prevention (CD) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline 1-800-426-4791.

About the Following Pages

The pages that follow list all of the federally regulated or monitored contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants.

What Do You Know About Bottled Water?

When drinking water meets federal standards there may not be any health-based benefits to purchasing bottled water or point of use devices. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information concerning taste, odor or color of drinking water, please call 775-2588. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Este reporte incluye informacion importante sobre el agua potable. Para asistencia en espanol, favor de llamar al telefono 775-2592.

SUBSTANCE	MONITORING DATE*	MCL	HIGHEST LEVEL DETECTED	MCLG	RANGE	SOURCES OF CONTAMINATION
REGULATED AT TREATMENT PLANT						
BETA/PHOTON EMITTERS	2005	50 pCi/L*	6.5 pCi/L	0	N/A	Decay of natural and man-made deposits
ALPHA EMITTERS	2005	15 pCi/L	5 pCi/L	0	N/A	Erosion of natural deposits
RADIUM 226 & 228 COMBINED	2005	5 pCi/L	0.7 pCi/L	0	N/A	Erosion of natural deposits
ARSENIC	2004 - 2005	10 ppb	3.9 ppb	0	2.1 - 3.9 ppb	Erosion of natural deposits; runoff from orchards
BARIUM	2004 - 2005	2 ppm	0.15 ppm	2 ppm	0.10 - 0.15 ppm	Erosion of natural deposits
CHROMIUM	2004 - 2005	100 ppb	6.7 ppb	100 ppb	0 - 6.7 ppb	Erosion of natural deposits
FLUORIDE	2008	4 ppm	1.46 ppm	4 ppm	0.64 - 1.46 ppm	Erosion of natural deposits
NITRATE	2008	10 ppm	1.42 ppm	10 ppm	1.21 - 1.42 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion
NITRITE	2005	1 ppm	0.13 ppm	1 ppm	0.01 - 0.13 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion
TURBIDITY	2008	TT = 5 NTU TT = % of samples <0.3 NTU	0.16 NTU 100%	0	0.03 - 0.16 NTU	Soil runoff
TOTAL ORGANIC CARBON	2008	TT	4.27 ppm	TT	1.68 - 4.27 ppm	Naturally present in environment
CHLORAMINES	2008	MRDL=4 ppm	3.5 ppm	MRDLG=4 ppm	0.5 - 3.6 ppm	Disinfectant used to control microbes
REGULATED IN THE DISTRIBUTION SYSTEM						
TOTAL TRIHALOMETHANES	2008	80 ppb	30.4 ppb	N/A	17.9 - 30.4 ppb	By-product of drinking water chlorination
HALOACETIC ACIDS (5)	2008	60 ppb	16.7 ppb	N/A	1.6 - 16.7 ppb	By-product of drinking water chlorination
TOTAL COLIFORM	2008	Presence of coliform bacteria in 5% or more of the monthly samples	1%	0	0 - 1%	Naturally present in the environment
REGULATED AT THE CUSTOMERS' TAP						
LEAD	2006	15 ppb AL	1.1 ppb (90th percentile) No sites exceeded AL	0	< 0.3-5.7 ppb	Erosion of natural deposits; corrosion of household plumbing systems
COPPER	2006	1.3 ppm AL	0.108 ppm (90th percentile) No sites exceeded AL	1.3 ppm	0.008-0.302 ppm	Erosion of natural deposits; corrosion of household plumbing systems
ADDITIONAL MONITORING						
ALUMINUM	2008	0.05-0.2ppm^	0.11 ppm	N/A	0.03 - 0.11 ppm	Water Treatment Chemical
CHLORIDE	2008	300 ppm ^	258 ppm	N/A	12 - 258 ppm	Naturally occurring
SULFATE	2008	300 ppm ^	166 ppm	N/A	34.2 - 166 ppm	Naturally occurring
TOTAL DISSOLVED SOLIDS	2008	1000 ppm^	828 ppm	N/A	N/A	Naturally occurring
AMMONIA	2008	Not Regulated	0.474 ppm	N/A	N/A	Water Treatment Chemical
CALCIUM	2004 - 2005	Not Regulated	62 ppm	N/A	59 - 62 ppm	Naturally occurring
MAGNESIUM	2004 - 2005	Not Regulated	35 ppm	N/A	14.1 - 35 ppm	Naturally occurring
SODIUM	2004 - 2005	Not Regulated	232 ppm	N/A	33.1 - 232 ppm	Naturally occurring
NICKEL	2004 - 2005	Not Regulated	0.002 ppm	N/A	N/A	Erosion of natural deposits
ZINC	2004 - 2005	5 ppm^	0.004 ppm	N/A	N/A	Naturally occurring
HARDNESS	2008	Not Regulated	259 ppm	N/A	218 - 259 ppm	Naturally occurring
CONDUCTANCE	2008	Not Regulated	1490 micromhos/cm	N/A	N/A	Naturally occurring
TOTAL ALKALINITY	2008	Not Regulated	229 ppm	N/A	170 - 229 ppm	Naturally occurring

* The state allows us to monitor for some substances less than once per year because the concentrations of these substances do not change frequently.

Some of our data, though representative, are more than one year old.

^ Secondary Constituent Levels set by the Texas Commission of Environmental Quality.

What Are Secondary Constituents?

Many constituents, (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

Additional Health Information for Lead

All water systems are required by EPA to report the language below starting with the 2009 Water Quality Report to be delivered to you by July of 2010. We are providing this information now as a courtesy.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. This water supply is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

If you have any questions regarding water quality issues, please contact:

- The Safe Drinking Water Hotline at 1-800-426-4791
- For questions about Lubbock's water quality, call 775-2614
Monday – Friday between 7:30 a.m. and 4:30 p.m.
- For general questions about Lubbock Water Utilities, or additional copies of this brochure, call 775-2592
Monday – Friday between 8 a.m. and 5 p.m.
- City Council meetings are typically held the 2nd and 4th Thursday of each month.
- Please recycle this report when finished! For more information on Recycling in Lubbock, call 775-2482.
- Este reporte incluye informacion importante sobre el agua potable. Para asistencia en espanol, favor de llamar al telefono 775-2592.

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<http://water.ci.lubbock.tx.us>

Your Annual Water Quality Report

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